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**MS APPEAL BRIEF - PATENTS**

Docket No.: 0033-0897P

(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Koji MOTOYAMA

Application No.: 10/642,494

Confirmation No.: 1856

Filed: August 18, 2003

Art Unit: 2686

For: LOW NOISE BLOCK DOWN CONVERTER  
WITH A PLURALITY OF LOCAL  
OSCILLATORS

Examiner: S. Khan

**APPEAL BRIEF TRANSMITTAL FORM**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief on behalf of the Appellants in connection with the above-identified application.

☐ The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.

A Notice of Appeal was filed on March 10, 2006.

☐ Applicant claims small entity status in accordance with 37 C.F.R. § 1.27.

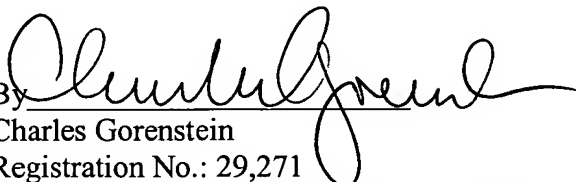
The fee has been calculated as shown below:

- ☐ Extension of time fee pursuant to 37 C.F.R. §§ 1.17 and 1.136(a) - \$@@@.
- ☒ Fee for filing an Appeal Brief - \$500.00 (large entity).
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- ☐ Please charge Deposit Account No. 02-2448 in the amount of \$@@@. A triplicate copy of this sheet is attached.

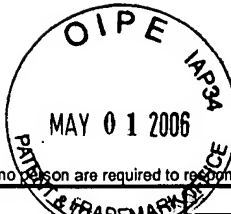
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: May 1, 2006

Respectfully submitted,

By   
Charles Gorenstein  
Registration No.: 29,271  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant

Attachment(s)



PTO/SB/17 (12-04v2)

Approved for use through 7/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>FEE TRANSMITTAL</b> <b>For FY 2005</b>		<b>Complete if Known</b>	
Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).		Application Number	10/642,494-Conf. #1856
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Filing Date	August 18, 2003
		First Named Inventor	Koji MOTOYAMA
		Examiner Name	S. Khan
		Art Unit	2686
TOTAL AMOUNT OF PAYMENT (\$)		Attorney Docket No.	0033-0897P
500.00			

<b>METHOD OF PAYMENT</b> (check all that apply)	
<input checked="" type="checkbox"/> Check	<input type="checkbox"/> Credit Card
<input type="checkbox"/> Money Order	<input type="checkbox"/> None
<input type="checkbox"/> Other (please identify): _____	
<input type="checkbox"/> Deposit Account	Deposit Account Number: <u>02-2448</u>
Deposit Account Name: <u>Birch, Stewart, Kolasch &amp; Birch, LLP</u>	
For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)	
<input type="checkbox"/> Charge fee(s) indicated below	<input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee
<input checked="" type="checkbox"/> Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17	<input checked="" type="checkbox"/> Credit any overpayments

<b>FEE CALCULATION</b>							
<b>1. BASIC FILING, SEARCH, AND EXAMINATION FEES</b>							
	<b>FILING FEES</b>		<b>SEARCH FEES</b>		<b>EXAMINATION FEES</b>		
		<u>Small Entity</u>		<u>Small Entity</u>		<u>Small Entity</u>	
<b>Application Type</b>	<b>Fee (\$)</b>	<b>Fee (\$)</b>	<b>Fee (\$)</b>	<b>Fee (\$)</b>	<b>Fee (\$)</b>	<b>Fee (\$)</b>	<b>Fees Paid (\$)</b>
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	
<b>2. EXCESS CLAIM FEES</b>							
						<b>Small Entity</b>	
<b>Fee Description</b>						<b>Fee (\$)</b>	<b>Fee (\$)</b>
Each claim over 20 (including Reissues)						50	25
Each independent claim over 3 (including Reissues)						200	100
Multiple dependent claims						360	180
<b>Total Claims</b>		<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	<b>Multiple Dependent Claims</b>		
4		- 20 =	x	=	<b>Fee (\$)</b>		<b>Fee Paid (\$)</b>
1		- 3 =	x	=			
<b>3. APPLICATION SIZE FEE</b>							
If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
<b>Total Sheets</b>	<b>Extra Sheets</b>	<b>Number of each additional 50 or fraction thereof</b>			<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	
	- 100 =	/50 (round up to a whole number) x			=		
<b>4. OTHER FEE(S)</b>							
Non-English Specification, \$130 fee (no small entity discount)							
Other (e.g., late filing surcharge): 1402 Filing a brief in support of an appeal						500.00	

<b>SUBMITTED BY</b>			
Signature		Registration No. (Attorney/Agent)	29,271
Name (Print/Type)	Charles Gorenstein	Telephone	(703) 205-8000
		Date	May 1, 2006



Docket No.: 0033-0897P  
(PATENT)

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Koji MOTOYAMA

**Before the Board of Appeals**

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For: LOW NOISE BLOCK DOWN CONVERTER  
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Examiner: S. Khan

**APPEAL BRIEF**

MS Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 1, 2006

Sir:

As required under § 41.37(a), this brief is being filed after the filing of the Notice of Appeal, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2), and any required petition for extension of time, if applicable, for filing this brief and fees related thereto, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

05/02/2006 SZEWDIE1 00000029 10642494

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

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IN THE U.S. PATENT AND TRADEMARK OFFICE

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Application No.: 10/642,494

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Art Unit: 2686

For: LOW NOISE BLOCK DOWN CONVERTER  
WITH A PLURALITY OF LOCAL  
OSCILLATORS

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Examiner: S. Khan

**APPEAL BRIEF ON BEHALF OF APPELLANT: Koji MOTOYAMA**

MS Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 1, 2006

Sir:

**I. REAL PARTY IN INTEREST**

The real party in interest for this application is the Assignee, Sharp Kabushiki Kaisha, 22-22, Nagaike-cho, Abeno-ku, Osaka, Japan.

**II. RELATED APPEALS AND/OR INTERFERENCES**

There are no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### **III. STATUS OF CLAIMS**

Claims 1-4 are currently pending in this application. Claim 1 is the only independent claim. The final Office Action dated November 10, 2005 rejects claims 1-4 under 35 U.S.C. §103(a) as being unpatentable over European Patent No. EP 0718964 to Kennan (hereafter *Kennan*) in view of U.S. Patent No. 6,538,533 to Hwang et al. (hereafter *Hwang*).

Claims 1-4 are the subject of the present appeal.

### **IV. STATUS OF AMENDMENTS**

No Amendment after Final has been submitted, therefore no Amendment after Final has been granted or refused entry.

### **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The claimed invention is directed to a low noise block down converter, comprising a plurality of local oscillators (Fig. 2, elements 13a and 13b) each including a dielectric resonator (Fig. 3A, elements 21a and 21b) and having an oscillation frequency different from each other. (see present specification, at least page 2, lines 5-7; page 4, lines 24-31; and Figs. 2 and 3A). Also included is a metal shielding box (Figs. 3-6, element 20) accommodating the plurality of local oscillators. (see present specification, at least page 2, lines 10-12; page 4, lines 24-26; and Figs. 3A, 3B, 4A, 4B, 5A, 5B, 6A and 6B). The metal shielding box includes only one shielding chamber accommodating the plurality of local oscillators (at least Fig. 3A, element 20a) and an electromagnetic coupling preventing member (see at least Fig. 3A, element 25) preventing electromagnetic coupling between one and another one of the dielectric resonators. (see present specification, at least page 2, lines 10-20; page 4, lines 24-26; page 5, lines 2-4; and Figs. 3A, 4A, 5A and 6A). The electromagnetic coupling preventing member extends between any two of the dielectric resonators and receiving a reference potential. (see present specification, at least page 2, lines 16-18; page 4, line 31 to page 5, line 4; and Figs. 3B and 6B).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The Final Office Action provides the following ground of rejection for review on appeal:

(a) claims 1-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent No. EP 0718964 to Kennan (hereafter *Kennan*) in view of U.S. Patent No. 6,538,533 to Hwang et al. (hereafter *Hwang*).

## **VII. ARGUMENTS**

### **A. The Examiner's Rejection under *Kennan* in view of *Hwang* Fails to Establish *Prima Facie* Obviousness of Independent Claim 1**

#### **1. Argument Summary**

The Examiner's reasoning provided in support of the rejection of independent claim 1 under 35 U.S.C. §103(a) as being obvious under the combination of *Kennan* in view of *Hwang* fails to establish *prima facie* obviousness. Specifically, the deficiencies of the rejection are at least in that the examiner has failed to provide references that teach or suggest all of the claim features, because the examiner has failed to show where each and every feature claimed is taught.

#### **2. Legal Requirements of *Prima Facie* Obviousness**

To establish *prima facie* obviousness, all claim limitations must be taught or suggested by the prior art and the asserted modification or combination of the prior art must be supported by some teaching, suggestion, or motivation in the applied references or in knowledge generally available to one skilled in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The prior art must suggest the desirability of the modification in order to establish a *prima facie* case of obviousness. *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). It can also be said that the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. *In re*



*Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Ehrreich*, 590 F.2d 902, 908-909, 200 USPQ 504, 510 (C.C.P.A. 1979).

The teaching or suggestion to make the asserted combination or modification of the primary reference must be found in the prior art and cannot be gleaned from applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In other words, the use of hindsight to reconstruct the claimed invention is impermissible. *Uniroyal Inc. v. Rudlan-Wiley Corp.*, 5 USPQ 1434 (Fed. Cir. 1983).

Furthermore, when considering the differences between the primary reference and the claimed invention, the question for assessing obviousness is not whether the differences themselves would have been obvious, but instead whether the claimed invention as a whole would have been obvious. *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983).

### **3. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 1**

The claimed invention as set forth in independent claims 1 is directed to a low noise block down converter having a plurality of local oscillators each including a dielectric resonator.

For example, claim 1 recites, *inter alia*, a low noise block down converter, comprising a plurality of local oscillators each including a dielectric resonator and having an oscillation frequency different from each other, and a metal shielding box accommodating the plurality of local oscillators. The metal shielding box includes only one shielding chamber accommodating the plurality of local oscillators and an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another one of said dielectric resonators.

In maintaining the rejection of independent claim 1, the Examiner alleges in the Final Office Action mailed November 10, 2005, on page 2, the following:

In regards to claim 1, *Kennan* discloses the following:

*Kennan* discloses a low noise block down converter (col. 1, lines 5-10), comprising: a plurality of local oscillators (col. 2, lines 13-15, two FET oscillators) with applied potential to the input (col. 3, lines 9-12, potential) each including a dielectric resonator (col. 2, lines 15-20, dielectric resonator) and having an oscillation frequency different from each other (col. 2, lines 5-10, two different frequencies). (see page 2 of Final Office Action).

In regards to claim 1, *Kennan* fails to disclose the following:

*Kennan* does not disclose a metal shielding box accommodating said plurality of local oscillators, wherein said metal shielding box includes only one shielding chamber accommodating said plurality of local oscillators and an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another of said dielectric resonator; said electromagnetic coupling preventing member extending between any two of said dielectric resonators and receiving a reference potential. (see page 2 of Final Office Action).

In an attempt to make up for the deficiencies noted above in *Kennan*, the Examiner imports *Hwang*. Specifically, the Examiner alleges that *Hwang* discloses the following:

*Hwang* discloses two dielectric resonators, a metal case and a screw arranged between the dielectric resonators (col. 7, lines 43-52; Fig. 7A/7B). (see page 2 of Final Office Action).

The Examiner further alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Kennan* to show...(the above

noted features) as taught by *Hwang*, the motivation being coupling adjustment. (col. 7, lines 43-52). (see page 3 of Final Office Action).

Appellant respectfully disagrees that *Kennan* in combination with *Hwang* possesses the limitation wherein there is a plurality of local oscillators each including a dielectric resonator being accommodated in a metal shielding box.

**a. The Examiner has Failed to Provide References that Teach or Suggest All of the Claim Features because the Examiner has failed to show a plurality of local oscillators each including a dielectric resonator, *all* being accommodated in a metal shielding box, as set forth in the claimed invention.**

As noted above, the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. *In re Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Ehrreich*, 590 F.2d 902, 908-909, 200 USPQ 504, 510 (C.C.P.A. 1979). Appellant respectfully submits that the cited art fails to collectively suggest or point to the claimed invention to support a finding of obviousness.

For example, the Examiner admits on page 2 of the Final Office Action that *Kennan* fails to disclose an electromagnetic coupling preventing member as claimed, and a metal shielding box including one shielding chamber for accommodating the plurality of local oscillators, each including a dielectric resonator, and the preventing member. In an attempt to show this feature, the Examiner imports *Hwang*. (see Final Office Action, page 2).

Specifically, the Examiner alleges that *Hwang* discloses two dielectric resonators, a metal case and a screw arranged between the dielectric resonators. (see Final Office Action, page 2).

However, appellant respectfully submits that a close review of *Hwang* merely reveals that *Hwang* discloses a dielectric filter 107 consisting essentially of only two dielectric resonators 71. The two dielectric resonators 71 in *Hwang* are configured in a metal case 65. Furthermore, in

*Hwang*, a coupling adjustment screw 109 is arranged between the dielectric resonators 71. (see *Hwang*, col. 7, lines 43-52; and Figs. 7A and 7B).

However, even if *Hwang* discloses two resonators 71 in a metal case 65, *Hwang*, like *Kennan*, fails to disclose a plurality of local oscillators each including a dielectric resonator in such a metal case 65. *Hwang* only discloses resonators, not resonators being paired with local oscillators, being enclosed in its metal case 65. Again, no local oscillators are being paired with the resonators in the metal case in *Hwang*, as set forth in the claimed invention. *Hwang* doesn't even consider local oscillators. Instead, *Hwang* is merely concerned with providing a dielectric resonator filter. In contrast with *Hwang*, *Kennan* is greatly concerned with having a local oscillator because *Kennan* is mainly concerned with providing a switchable oscillator circuit. However, although *Kennan* uses a resonator for a different purpose than *Hwang*, *Kennan* also fails to disclose a plurality of resonators being paired with a local oscillator in a metal case having a single shielding chamber, as set forth in the claimed invention.

**b. The Examiner has Failed to Provide References that Teach or Suggest All of the Claim Features because the Examiner has failed to show an electromagnetic coupling preventing member, as set forth in the claimed invention.**

Appellant respectfully submits that *Hwang* fails to disclose an electromagnetic coupling preventing member, as set forth in the present invention. For example, in the present invention, the electromagnetic coupling preventing member extends between any two of the dielectric resonators, receives a reference potential, and prevents electromagnetic coupling between one and another one of the dielectric resonators.

In contrast with the present invention, *Hwang* merely discloses that its coupling adjustment screw 109 is arranged between the dielectric resonators. However, *Hwang* fails to disclose that such a screw 109 prevents an electromagnetic coupling between one and another one of the dielectric resonators. Instead, in *Hwang*'s limited disclosure about its screw 109,

*Hwang* only calls it a coupling adjustment screw and discloses that it is arranged between the dielectric resonators. In *Hwang*, nothing further is disclosed about the coupling adjustment screw 109. As such, appellant respectfully submits that the Examiner is overreaching when the Examiner alleges that *Hwang's* screw 109 discloses an electromagnetic coupling preventing member as claimed.

In fact, *Hwang* only mentions electromagnetic coupling in relations with input/output probes 45 and 47. (see *Hwang*, col. 4, lines 12-19). For example, *Hwang* discloses that in the actual dielectric resonator filter 25 as shown in Figs. 1A and 1B, the dielectric resonators 37, 39, 41 and 43 are in the metal case ..., and coupling between the dielectric resonators is determined by electromagnetic coupling using a resonance mode  $TE_{01\&}$  of the dielectric. Furthermore, *Hwang* discloses that the electromagnetic coupling quantities ... are determined by the intervals between the input/output probes and the input/output dielectric resonators, respectively. (see *Hwang*, col. 4, lines 51-63). As such, *Hwang* uses the intervals between the input/output probes and the intervals between resonators to determine the electromagnetic coupling. However, *Hwang* fails to disclose preventing such electromagnetic coupling and *Hwang* further fails to disclose using the screw 109 to prevent such electromagnetic coupling.

In addition, *Hwang* discloses using two electromagnetic wave absorbers 113 and 115 in the dielectric resonator filter. (see *Hwang*, col. 8, lines 14-58). However, such electromagnetic wave absorbers fail to be extending between any two of the dielectric resonators, as set forth in the present invention.

In other words, *Hwang*, like *Kennan*, fails to disclose an electromagnetic coupling preventing member as set forth in the present invention because in *Hwang's* disclosure, *Hwang's* screw 109 fails to be expressly associated with electromagnetic coupling prevention.

For at least the reasons noted above, appellant submits that *Hwang* fails to make up for the conceded deficiencies found in *Kennan*.

Appellant respectfully submits that the Examiner is missing the point that neither *Kennan* nor *Hwang* discloses a plurality of local oscillators each including a dielectric resonator being

accommodated in a metal shielding box with a preventing member, as claimed. Instead, it appears that the Examiner is using a piece meal approach to arriving at the claimed invention without any regard to the overall configuration as claimed and without any regards to a proper motivation for piecing the many pieces together to arrive at the claimed invention.

Specifically, both *Kennan* and *Hwang* not only collectively fail to disclose (1) a plurality of local oscillators each including a dielectric resonator being accommodated in a metal shielding box and (2) fail to disclose an electromagnetic coupling preventing member, as set forth in independent claim 1, but appellant respectfully submits that their also fail to be proper motivation for combining the two cited references.

**c. The Examiner has Failed to Provide Proper Motivation for Combining *Kennan* with *Hwang*.**

Appellant respectfully submits that the teaching or suggestion to make an asserted combination or modification of the primary reference must be found in the prior art and cannot be gleaned from appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In other words, the use of hindsight to reconstruct the claimed invention is impermissible. *Uniroyal Inc. v. Rudlan-Wiley Corp.*, 5 USPQ 1434 (Fed. Cir. 1983).

Appellant respectfully submits that the Examiner is improperly relying on improper hindsight reconstruction in combining *Hwang* with *Kennan*. For example, in combining *Hwang* with *Kennan* the Examiner merely states that "...the motivation being coupling adjustment." (see Final Office Action, page 3, lines 9-10).

However, appellant respectfully submits that from our review of *Hwang* and *Kennan*, appellant finds no teaching or suggestion to support the examiner's asserted motivation to combine the references so as to have "coupling adjustment." The examiner's unclear statement "coupling adjustment" is unsupported because the examiner has not established what this "coupling adjustment" even means in *Hwang* or if it is even a factor recognized by *Kennan*. The

examiner has not pointed to any showing in either reference that would suggest that “preventing electromagnetic coupling between the dielectric resonators” is an issue recognized in either reference.

Instead, Appellant respectfully submits that but for appellant’s own disclosure of the specific elements involved, i.e., their location, their number, and their interrelationship with one another, the applied references themselves would not have instructed one versed in the art on how to go about selectively reworking and modifying the metal case and screw of *Hwang* to yield appellant’s claimed configuration. Accordingly, appellant submits that the Examiner’s rejection is predicated upon impermissible hindsight, and not upon a suggestion from the combination of the references applied that would have been derivable by one versed in the art from the references themselves.

Appellants respectfully submit that only through impermissible hindsight reconstruction using appellant’s invention would one find motivation to modify the *Kennan* device to have all of the claimed features, including a metal case with one shielding chamber and a electromagnetic coupling preventing member.

Appellant respectfully submits that the Examiner has improperly used appellant’s invention as a road map to pick and choose features and paste the chosen features together to arrive at the claimed invention, even though the reference cited do not provide any teachings, suggestion or motivation to make the modification.

To establish *prima facie* obviousness, all claim limitations must be taught or suggested by the prior art and the asserted modification or combination of the prior art must be supported by some teaching, suggestion, or motivation in the applied references or in knowledge generally available to one skilled in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The prior art must suggest the desirability of the modification in order to establish a *prima facie* case of obviousness. *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). It can also be said that the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. *In re*

*Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Ehrreich*, 590 F.2d 902, 908-909, 200 USPQ 504, 510 (C.C.P.A. 1979).

Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness. Thus, Appellant maintains that claims 1-4 are allowable over the combination of *Kennan* and *Hwang* for at least the reason noted above.

### **VIII. CLAIMS**

A copy of the claims involved in the present Appeal are attached hereto as Appendix A.

### **IX. EVIDENCE**

There is no additional evidence pursuant to §§ 1.130, 1.131, or 1.132 and/or evidence entered by or relied upon by the examiner that is relevant to this appeal as noted in Appendix B.

### **X. RELATED PROCEEDINGS**

No related proceedings are referenced in II. above, and thus, no copies of decisions in related proceedings are provided.

### **XI. CONCLUSION**

The withdrawal of the outstanding rejections and the allowance of claims 1-4 are earnestly solicited.



The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, and 1.21 that may be required by this paper and to credit any overpayment to Deposit Account No. 02-2448.

Dated: May 1, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Charles Gorenstein', written over a horizontal line.

Charles Gorenstein

Registration No.: 29,271

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Rd

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Appellant

**APPENDIX A**

**Claims Involved in the Appeal of Application Serial No. 10/642,494 are as follows:**

1. (previously presented) A low noise block down converter, comprising:  
a plurality of local oscillators each including a dielectric resonator and having an oscillation frequency different from each other; and  
a metal shielding box accommodating said plurality of local oscillators,  
wherein  
said metal shielding box includes only one shielding chamber accommodating said plurality of local oscillators and  
an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another one of said dielectric resonators;  
said electromagnetic coupling preventing member extending between any two of said dielectric resonators and receiving a reference potential.
2. (Original) The low noise block down converter according to claim 1, wherein said electromagnetic coupling preventing member includes a conductive bar having one end extending between any two of said dielectric resonators and receiving a reference potential.
3. (Original) The low noise block down converter according to claim 1, further comprising a substrate having a surface on which said plurality of local oscillators are mounted,  
wherein  
said electromagnetic coupling preventing member includes a conductive pattern formed on the surface of said substrate between any two of said dielectric resonators and receiving a reference potential.
4. (Original) The low noise block down converter according to claim 1, wherein

said electromagnetic coupling preventing member includes a metal plate provided between any two of said dielectric resonators and receiving a reference potential.

**APPENDIX B**

There is no additional evidence pursuant to §§ 1.130, 1.131, or 1.132 and/or evidence entered by or relied upon by the examiner that is relevant to this appeal.

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**APPENDIX C**

There are no related proceedings.